

1116-62-2370

Leslie New*, 14204 Salmon Creek Avenue, Vancouver, WA 98686, and **Trish Miller, Adam Duerr, Melissa Braham** and **Todd Katzner**. *Modelling Remote Sensing Data in Ecology*. Preliminary report.

The movement of animals is of interest to researchers in ecology. Remotely tracking animal movements is a frequent practice that has yielded a wealth of knowledge. The development and deployment of the required technology has also increased significantly over time. Initially, analyses of data collected via this technology had two primary focuses: 1) the estimation of error around location measurements and 2) the interpolation of potential movement pathways, since the time between measurements could be large given the speed at which an animal is capable of travelling. As technology has improved, both the error around location measurements and the time period between measurements have decreased for to the point where these sources of error are non-existent for some species. For example, deployment of remote sensing devices on golden eagles (*Aquila chrysaetos*) collected data at 30 sec intervals over the course of a day. This included not only location data, but also information on factors such as altitude, velocity, acceleration and environmental covariates. As a result, the research question shifts from where the birds were flying to their behavior and use of a landscape. This talk will discuss the potential of different statistical approaches to answer these ecological questions. (Received September 22, 2015)